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EXAMINER

COLBERT, ELLA

ART UNIT	PAPER NUMBER
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3624

DATE MAILED: 06/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/336,031

Applicant(s)

CURTIS ET AL.

Examiner

Ella Colbert

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 April 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claims 1-42 and newly added claims 43-49 are pending. Claims 1, 25, 37, and 39-42 have been amended and claims 43-49 have been added in this communication filed 04/07/03 entered as Amendment C, paper no. 10.
2. The IDS submitted 02/20/03 has been considered and entered as paper no. 9.
3. The 35 U.S.C. § 101 rejection in the Office Action of 12/02/02 is hereby withdrawn in view of Applicants' persuasive arguments.
4. Applicants' arguments with respect to claims 1-42 have been considered but are moot in view of the new ground(s) of rejection.

### ***Double Patenting***

5. 35 U.S.C. § 101 reads as follows:

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title."

6. The following non-statutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Sarett*, 327 F.2d 1005, 140 USPQ 474 (CCPA 1964); *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968); *In re White*, 405 F.2d 904, 160 USPQ 644 (CCPA 1969); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761

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(CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

7. Claims 1-49 are provisionally rejected under the judicially created doctrine of double patenting over claims 1-52 of copending Application No. 09/766,293. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

8. Claims 1-49 essentially repeat all of the features listed in copending Application No. 09/766,293. Although the conflicting claims are not identical, they are not patentably distinct from each other because they recite steps that are substantially the same and that would have been obvious to one of ordinary skill in the art.

Claims 1-49 essentially repeat all of the features listed in the copending '293 Application and further recites the additional step of normalizing the input symbol to generate a normalized symbol formatted according to a predetermined structure, which does not appear in the claims of the above mentioned copending '293 Application.

Claims 1-49 essentially repeat all of the features in the copending '293 Application except the '293 Application has the additional feature of a "categorical symbol".

However, Reese teaches normalizing the input symbol to generate a normalized symbol formatted according to a predetermined structure.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the step of normalizing the input symbol to generate a normalized symbol formatted according to a predetermined structure and to modify in

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the copending '293 Application because, it would allow all of the master symbols in the master symbol database to be structured according to the same pre-determined symbol template (format).

The omission of an element with a corresponding loss of function is an obvious expedient. See *In re Karlson*, 136 USPQ 184 and *Ex parte Rainu*, 168 USPQ 375. Instant claim 1, the deletion of "processing a symbol in order to generate at least one of a master symbol and a categorical symbol" from the copending '293 Application would have been an obvious expedient as above.

Claims 1-49 essentially repeat all of the features in the copending '293 Application listed above and further recites the additional step of normalizing the input symbol to generate a normalized symbol formatted according to a predetermined structure, which does not appear in the claims of the copending '293 Application.

However, Reese teaches the step of normalizing the input symbol to generate a normalized symbol formatted according to a predetermined structure.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the step of generating a normalized symbol formatted according to a predetermined structure and to modify in the copending '293 Application because it would allow all of the master symbols in the master symbol database to be structured according to the same pre-determined symbol template (format).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

***Claim Rejections - 35 USC § 112***

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1, 12, 25, 37, 39, 41, and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 12, 25, 37, 39, 41, and 42 recite "... a master symbol formatted according to a predetermined structure;". Do Applicants' mean "a master symbol database according to a pre-defined structure" (see the Specification at Page 7, line 21 and lines 25-27 and Page 8, lines 27-29)? The Examiner does not find in Applicants' Specification "... a master symbol formatted according to a predetermined structure". Applicants' are respectfully requested to point out in the Specification "... a master symbol formatted according to a predetermined structure" or to correct the claim language and/or Specification.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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12. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 6,122,635) Burakoff et al, hereafter Burakoff.

With respect to claim 1, Burakoff teaches, processing a symbol to generate a master symbol formatted according to a predetermined structure (col. 7, lines 35-45), determining a unique parent identifier corresponding to the master symbol (col. 4, lines 15-23), storing the parent identifier and the master symbol in a master symbol database wherein the master symbol is linked to the parent identifier (col. 3, lines 29-34 and col. 4, lines 20-23), and storing at least one information element wherein the at least one information element is linked to the parent identifier (col. 4, lines 1-10 and col. 6, lines 4-14). Burakoff did not teach, a master symbol database, however Burakoff's database could be used to store master symbols. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a master symbol database in view of Burakoff's teachings of a ticker symbol and a database and to modify in Burakoff because such a modification would allow Burakoff's database to only store master symbols (ticker symbols) instead of storing the master symbols with the securities information and other data. A database is by definition a collection of data stored on a computer storage medium, such as a disk, that can be used for more than one purpose.

With respect claim 2, Burakoff teaches, processing the symbol to generate the master symbol includes the step of applying a set of character rules to the symbol (col. 7, lines 41-50).

With respect to claim 3, Burakoff teaches, processing the symbol to generate the master symbol includes the step of applying a set of process rules to the symbol (col. 3, lines 2-13).

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With respect to claim 4, Burakoff teaches, the at least one information element is a document (col. 3, lines 38-51).

13. Claims 5-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burakoff in view of (US 5,940,843) Zucknovich et al, hereafter Zucknovich.

With respect to claim 5, Burakoff did not teach, each master symbol is structured according to a symbol template containing at least one symbol field. Zucknovich discloses, each master symbol is structured according to a symbol template containing at least one symbol field (col. 14, lines 23-66 and col. 15, lines 1-5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have each master symbol structured according to a symbol template containing at least one symbol field and to combine Burakoff's processing a symbol with Zucknovich's each master symbol structured according to a symbol template containing at least one symbol field because such a modification in Burakoff would allow Burakoff to have preset templates for a user or a group of users from a particular company or geographic area and to have the template file opened for the characters to be inserted into the template. Templates are well known in the art for the purpose of being a predesigned document that contains formatting and in many cases, generic text.

With respect to claim 6, Burakoff did not teach, each master symbol includes a symbol segment corresponding to a symbol field defined by the symbol template. Zucknovich discloses, each master symbol includes a symbol segment corresponding a symbol field defined by the symbol template (col. 15, lines 8-45). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have each master symbol include a symbol segment corresponding to a symbol field defined by the symbol template and to combine Burakoff's master symbol with Zucknovich's each master symbol includes a symbol segment corresponding to a



symbol field defined by the symbol template because such a modification in Burakoff would allow Burakoff 's system to have a field for at least one ticker symbol defined in a symbol template. Templates are well known in the art for the purpose of being a predesigned document that contains formatting and in many cases, generic text.

With respect to claim 7, Burakoff teaches, each master symbol refers to a security issued by a company (col. 7, lines 35-40).

With respect to claim 8, Burakoff did not teach, the symbol template includes a root symbol field referring to the name of a security and a source symbol field referring to a country in which the security is traded. Zucknovich discloses, the symbol template includes a root symbol field referring to the name of a security and a source symbol field referring to a country in which the security is traded (col. 10, lines 33-65). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the symbol template includes a root symbol field referring to the name of a security and a source symbol field referring to a country in which the security is traded and to combine Burakoff's process rules to the symbol with Zucknovich's the symbol template includes a root symbol field referring to the name of a security and a source symbol field referring to a country in which the security is traded because such a modification in Burakoff would allow Burakoff 's system to have a primary field for the name of the security and another field for the country. The root is known in the art as being the main or uppermost level in a hierarchically organized set of information. The root is known as the point from which subsets (in this case source symbol fields) branch in a logical sequence that moves from a broader focus to narrower perspectives.

With respect to claim 9, Burakoff teaches, the step of storing at least one information element includes the steps of generating an information element identifier, storing the information element identifier and the parent identifier so that the parent

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identifier is linked to the information element identifier, and storing the information element and the information element identifier so that the information element identifier is linked to the information element (col. 3, lines 29-37 and lines 52-65, col. 4, lines 1-10, and col. 8, lines 43-47).

With respect to claim 10, Burakoff teaches, each symbol segment comprises an ASCII (American Standard Code for Information Interchange) string (col. 9, lines 30-40).

With respect to claim 11, Burakoff did not teach, the parent identifier is linked to the information element identifier in a relational database. Zucknovich discloses, the parent identifier is linked to the information element identifier in a relational database (col. 7, lines 5-15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the parent identifier linked to the information element identifier in a relational database and to combine Burakoff's master symbol linked to the parent identifier with Zucknovich's parent identifier linked to the information element identifier in a relational database because such a modification in Burakoff would allow Burakoff's system to have a relational database that allows field searching. Relational databases are well known in the database art as being a database that stores information in tables - rows and columns of data - and conducts searches using data in specified columns of one table to find additional data in another table. In a relational database, the rows of a table represent records (collections of information about separate items) and the columns represent fields (particular attributes of a record).

### ***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 12 –15 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 6,122,635) Burakoff et al, hereafter Burakoff in view of (US 6,236,980 B1) Reese.

With respect to claim 12, Burakoff teaches, receiving an information element and at least an input symbol (col. 7, lines 5-15) and storing at least the parent identifier and the information element so that the parent identifier is linked to the information element (col. 4, lines 52-65). Burakoff did not teach, normalizing the input symbol formatted according to a predetermined structure or searching a master symbol database using a normalized symbol to find a matching master symbol and linked parent identifier. Reese discloses, normalizing the input symbol to generate a normalized symbol formatted according to a predetermined structure (col. 14, lines 22-34) and searching a master symbol database using a normalized symbol to find a matching master symbol and linked parent identifier (col.16, lines 20-34 and col. 17, lines 45-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to normalize the input symbol to generate a normalized symbol formatted according to a predetermined structure and to use the normalized symbol to search the master symbol database to find the matching master symbol and to combine Burakoff's processing the symbol and storing a parent identifier with Reese's normalized symbol and normalizing the input symbol formatted according to a predetermined structure and using the normalized symbol to search a master symbol database to find the matching master symbol because such a modification in Burakoff would allow a user to enter the ticker symbol with the parent ID being the association found within the database.

With respect to claim 13, Burakoff teaches, processing the input symbol to generate the normalized symbol includes applying a set of character rules to the input

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symbol (col. 7, lines 41-50). Burakoff did not teach the symbol is a normalized symbol. Reese teaches, a normalized symbol (col. 14, lines 22-34, col. 16, lines 20-34, and col. 17, lines 45-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a normalized symbol and to use the normalized symbol to find the matching master symbol and to combine Burakoff's processing the symbol and storing a parent identifier with Reese's normalized symbol because such a modification in Burakoff would allow a user to enter the ticker symbol with the parent ID being the association found within the database.

With respect to claim 14, Burakoff teaches, processing the symbol to generate the master symbol includes the step of applying a set of process rules to the symbol (col. 3, lines 2-13).

With respect to claim 15, Burakoff teaches, the at least one information element is a document (col. 3, lines 38-51).

16. Claims 16-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 6,122,635) Burakoff et al, hereafter Burakoff in view of (US 6,236,980 B1) Reese and further in view of ((US 5,940,843) Zucknovich et al, hereafter Zucknovich.

With respect to claim 16, Burakoff and Reese did not teach, each master symbol is structured according to a symbol template containing at least one symbol field. Zucknovich discloses, each master symbol is structured according to a symbol template containing at least one symbol field (col. 14, lines 23-66 and col. 15, lines 1-5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have each master symbol structured according to a symbol template containing at least one symbol field and to combine Burakoff's processing a symbol and Reese's information element with Zucknovich's each master symbol structured according to a symbol template containing at least one symbol field because such a modification in

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Burakoff and Reese would allow Burakoff and Reese to have preset templates for a user or a group of users from a particular company or geographic area and to have the template file opened for the characters to be inserted into the template. Templates are well known in the art for the purpose of being a predesigned document that contains formatting and in many cases, generic text.

With respect to claim 17, Burakoff and Reese did not teach, each master symbol includes a symbol segment corresponding to a symbol field defined by the symbol template. Zucknovich discloses, each master symbol includes at least one symbol segment corresponding respectively to the at least symbol field defined by the symbol template (col. 15, lines 8-45). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have each master symbol include a symbol segment corresponding to a symbol field defined by the symbol template and to combine Burakoff's master symbol and Reese's input symbol with Zucknovich's each master symbol includes a symbol segment corresponding to a symbol field defined by the symbol template because such a modification in Burakoff and Reese would allow Burakoff's and Reese's system to have a field for at least one ticker symbol defined in a symbol template. Templates are well known in the art for the purpose of being a predesigned document that contains formatting and in many cases, generic text.

With respect to claim 18, Burakoff teaches, each master symbol refers to a security issued by a company (col. 7, lines 35-40).

With respect to claim 19, Burakoff and Reese did not teach, the symbol template includes a root symbol field referring to the name of a security and a source symbol field referring to a country in which the security is traded. Zucknovich discloses, the symbol template includes a root symbol field referring to the name of a security and a source symbol field referring to a country in which the security is traded (col. 10, lines 33-65). It

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would have been obvious to one having ordinary skill in the art at the time the invention was made to have the symbol template include a root symbol field referring to the name of a security and a source symbol field referring to a country in which the security is traded and to combine Burakoff's process rules to the symbol and Reese's normalized symbol with Zucknovich's symbol template includes a root symbol field referring to the name of a security and a source symbol field referring to a country in which the security is traded because such a modification in Burakoff and Reese would allow Burakoff's and Reese's system to have a primary field for the name of the security and another field for the country. The root is known in the art as being the main or uppermost level in a hierarchically organized set of information. The root is known as the point from which subsets (in this case source symbol fields) branch in a logical sequence that moves from a broader focus to narrower perspectives.

With respect to claim 20, With respect to claim 9, Burakoff teaches, the step of storing at least one information element includes the steps of generating an information element identifier, storing the information element identifier and the parent identifier so that the parent identifier is linked to the information element identifier, and storing the information element and the information element identifier so that the information element identifier is linked to the information element (col. 3, lines 29-37 and lines 52-65, col. 4, lines 1-10, and col. 8, lines 43-47).

With respect to claim 21, Burakoff teaches, each symbol segment comprises an ASCII (American Standard Code for Information Interchange) string (col. 9, lines 30-40).

With respect to claim 22, Burakoff and Reese did not teach, the parent identifier is linked to the information element identifier in a relational database. Zucknovich discloses, the parent identifier is linked to the information element identifier in a relational database (col. 7, lines 5-15). It would have been obvious to one having

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ordinary skill in the art at the time the invention was made to have the parent identifier linked to the information element identifier in a relational database and to combine Burakoff's master symbol linked to the parent identifier and Reese's input symbol with Zucknovich's parent identifier linked to the information element identifier in a relational database because such a modification in Burakoff and Reese would allow Burakoff's and Reese's system to have a relational database that allows field searching.

Relational databases are well known in the database art as being a database that stores information in tables - rows and columns of data - and conducts searches using data in specified columns of one table to find additional data in another table. In a relational database, the rows of a table represent records (collections of information about separate items) and the columns represent fields (particular attributes of a record).

With respect to claim 23, Burakoff and Zucknovich did not teach, if the normalized symbol contains an unresolved segment, searching a contributor database to find a predominant use segment and assigning the predominant use segment to the unresolved segment. Reese discloses, if the normalized symbol contains an unresolved segment, searching a contributor database to find a predominant use segment and assigning the predominant use segment to the unresolved segment (col. 26, lines 14-24, fig. 10C(220) and col. 19, lines 3-17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a normalized symbol contain an unresolved segment searching a contributor database to find a predominant use segment and to assign the predominant use segment to the unresolved segment and to combine Burakoff's input symbol and parent identifier and Reese's relational database with Reese's normalized symbol containing an unresolved segment, searching a contributor database to find a predominant use segment and

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assigning the predominant use segment to the unresolved segment because such a modification in Burakoff and Zucknovich would allow a user to enter the ticker symbol with the parent ID being the association found within the database and to search for another symbol/abbreviation in the database.

With respect to claim 24, Burakoff and Zucknovich did not teach, if the normalized symbol is not found in the master symbol database, searching a database using the input symbol and retrieving a parent identifier linked to the input symbol. Reese discloses, if the normalized symbol is not found in the master symbol database, searching a database using the input symbol and retrieving a parent identifier linked to the input symbol in col. 14, lines 22-34, col. 16, lines 20-34, col. 17, lines 45-50, and col. 39, lines 23-42. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a normalized symbol not found in the master symbol database to search a database using the input symbol and retrieving a parent identifier linked to the input symbol and to combine Burakoff's input symbol and Zucknovich's symbol field with Reese's normalized symbol not found in the master symbol database to search a database using the input symbol and retrieving a parent identifier linked to the input symbol because such a modification in Burakoff and Zucknovich would allow Burakoff's and Zucknovich's system to enter a ticker symbol (an input symbol) and to use the association found within the database to search for the parent identifier symbol.

***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the



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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 6,122,635) Burakoff et al, hereafter Burakoff in view of (US 6,236,980 B1) Reese.

With respect to claim 25, Burakoff teaches, receiving an input symbol (col. 7, lines 51-57); searching an information element database to find an information element linked with the parent identifier and retrieving the information element linked to the parent identifier (col. 3, lines 29-30 and lines 39-45, col. 4, lines 15-19, and col. 10, lines 19-51). Burakoff did not teach, normalizing the input symbol to generate a normalized symbol formatted according to a predetermined structure and searching a master symbol database using the normalized symbol to find a matching master symbol and a parent identifier linked to the master symbol. Reese disclosed, normalizing the input symbol to generate a normalized symbol formatted according to a predetermined structure and searching a master symbol database using the normalized symbol to find a matching master symbol and a parent identifier linked to the master symbol (col. 14, lines 22-34, col. 16, lines 20-34, col. 17, lines 45-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to normalize the input symbol to generate a normalized symbol formatted according to a predetermined structure and to use the normalized symbol to search a master symbol database and to find the matching master symbol and to combine Burakoff's processing the symbol and storing a parent identifier with Reese's normalized symbol and using the normalized symbol to search a master symbol database to find the matching master symbol because such a modification in Burakoff would allow a user to enter the ticker symbol with the parent ID being the association found within the database.

With respect to claim 26, Burakoff did not teach, determining whether the input symbol includes an unresolved segment and if the input symbol contains an unresolved segment, searching a client database to find a client preference segment, and assigning the client preference segment to the unresolved segment. Reese discloses, determining whether the input symbol includes an unresolved segment and if the input symbol contains an unresolved segment, searching a client database to find a client preference segment, and assigning the client preference segment to the unresolved segment (col. 19, lines 3-17 and col. 26, lines 14-24). It would have been obvious to one having ordinary skill in the art at the time the invention was made to determine whether the input symbol includes an unresolved segment and if the input symbol contains an unresolved segment, searching a client database to find a client preference segment, and assigning the client preference segment to the unresolved segment and to combine Burakoff's receiving an input symbol and searching a database with Reese's determining whether the input symbol includes an unresolved segment and if the input symbol contains an unresolved segment, searching a client database to find a client preference segment, and assigning the client preference segment to the unresolved segment because such a modification in Burakoff would allow a user to enter the ticker symbol (an input symbol) and to find an association within the database to find the user's preferred symbol. This claim is also rejected for the similar rationale given for claim 25.

With respect to claim 27, Burakoff teaches, processing the input symbol to generate the normalized symbol includes applying a set of character rules to the input symbol in col. 7, lines 41-50. Burakoff did not teach a normalized symbol. Reese discloses, a normalized symbol (col. 14, lines 22-34, col. 16, lines 20-34, and col. 17, lines 45-50). It would have been obvious to one having ordinary skill in the art at the

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time the invention was made to have a normalized symbol and to use the normalized symbol to find the matching master symbol and to combine Burakoff's processing the symbol and storing a parent identifier with Reese's normalized symbol and using the normalized symbol to find the matching master symbol because such a modification in Burakoff would allow a user to enter the ticker symbol with the parent ID being the association found within the database.

With respect to claim 28, Burakoff teaches, processing the input symbol to generate a normalized symbol comprises applying a set of process rules (col. 3, lines 2-13); processing the input symbol to generate the normalized symbol includes applying a set of character rules to the input symbol (col. col. 7, lines 41-50). Burakoff did not teach a normalized symbol. Reese discloses, a normalized symbol (col. 14, lines 22-34, col. 16, lines 20-34, and col. 17, lines 45-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a normalized symbol and to use the normalized symbol to find the matching master symbol and to combine Burakoff's processing the symbol and storing a parent identifier with Reese's normalized symbol and using the normalized symbol to find the matching master symbol because such a modification in Burakoff would allow a user to enter the ticker symbol with the parent ID being the association found within the database.

With respect to claim 29, Burakoff teaches, the information element is a document (col. 1, lines 28-40).

19. Claims 30-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 6,122,635) Burakoff et al, hereafter Burakoff in view of (US 6,236,980 B1) Reese and further in view of view of ((US 5,940,843) Zucknovich et al, hereafter Zucknovich.

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With respect to claim 30, Burakoff and Reese did not teach, each master symbol is structured according to a symbol template containing at least one symbol field.

Zucknovich discloses, each master symbol is structured according to a symbol template containing at least one symbol field (col. 14, lines 23-66 and col. 15, lines 1-5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have each master symbol structured according to a symbol template containing at least one symbol field and to combine Burakoff's processing a symbol with Zucknovich's each master symbol structured according to a symbol template containing at least one symbol field because such a modification in Burakoff would allow Burakoff to have preset templates for a user or a group of users from a particular company or geographic are and to have the template file opened for the characters to be inserted into the template. Templates are well known in the art for the purpose of being a predesigned document that contains formatting and in many cases, generic text.

With respect to claim 31, Burakoff did not teach, each master symbol is structured according to a symbol template containing at least one symbol field. Zucknovich teaches, each master symbol is structured according to a symbol template containing at least one symbol field in col. 14, lines 23-66 and col. 15, lines 1-5. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have each master symbol structured according to a symbol template containing at least one symbol field and to combine Burakoff's processing a symbol with Zucknovich's each master symbol structured according to a symbol template containing at least one symbol field because such a modification in Burakoff would allow Burakoff to have preset templates for a user or a group of users from a particular company or geographic are and to have the template file opened for the characters to be inserted

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into the template. Templates are well known in the art for the purpose of being a predesigned document that contains formatting and in many cases, generic text. This dependent claim is rejected for the similar rationale given for claim 30.

With respect to claim 32, Burakoff did not teach, each master symbol includes a symbol segment corresponding to a symbol field defined by the symbol template. Zucknovich teaches, each master symbol includes at least one symbol segment corresponding respectively to the at least symbol field defined by the symbol template in col. 15, lines 8-45. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have each master symbol include a symbol segment corresponding to a symbol field defined by the symbol template and to combine Burakoff's master symbol with Zucknovich's each master symbol includes a symbol segment corresponding to a symbol field defined by the symbol template because such a modification in Burakoff would allow Burakoff's system to have a field for at least one ticker symbol defined in a symbol template. Templates are well known in the art for the purpose of being a predesigned document that contains formatting and in many cases, generic text.

With respect to claim 33, Burakoff teaches, each master symbol refers to a security issued by a company in col. 7, lines 35-40. Zucknovich teaches, each master symbol refers to a security issued by a company in col.2, lines 55-61.

With respect to claim 34, Burakoff did not teach, the symbol template includes a root symbol field referring to the name of a security and a source symbol field referring to a country in which the security is traded. Zucknovich teaches, the symbol template includes a root symbol field referring to the name of a security and a source symbol field referring to a country in which the security is traded in col. 10, lines 33-65. It would have been obvious to one having ordinary skill in the art at the time the invention was made

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to have the symbol template include a root symbol field referring to the name of a security and a source symbol field referring to a country in which the security is traded and to combine Burakoff's process rules to the symbol with Zucknovich's the symbol template include a root symbol field referring to the name of a security and a source symbol field referring to a country in which the security is traded because such a modification in Burakoff would allow Burakoff 's system to have a primary field for the name of the security and another field for the country. The root is known in the art as being the main or uppermost level in a hierarchically organized set of information. The root is known as the point from which subsets (in this case source symbol fields) branch in a logical sequence that moves from a broader focus to narrower perspectives.

With respect to claim 35, Burakoff teaches, each symbol segment comprises an ASCII (American Standard Code for Information Interchange) string in col. 9, lines 30-40. Zucknovich teaches, each symbol segment comprises an ASCII (American Standard Code for Information Interchange) string in col. 7, lines 16-25.

With respect to claim 36, Burakoff did not teach, the parent identifier is linked to the information element identifier in a relational database. Zucknovich teaches, the parent identifier is linked to the information element identifier in a relational database in col. 7, lines 5-15. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the parent identifier linked to the information element identifier in a relational database and to combine Burakoff's master symbol linked to the parent identifier with Zucknovich's parent identifier linked to the information element identifier in a relational database because such a modification in Burakoff would allow Burakoff 's system to have a relational database that allows field searching. Relational databases are well known in the database art as being a database that stores information in tables - rows and columns of data - and conducts searches using

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data in specified columns of one table to find additional data in another table. In a relational database, the rows of a table represent records (collections of information about separate items) and the columns represent fields (particular attributes of a record).

20. Claims 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 6,122,635) Burakoff et al, hereafter Burakoff in view of (US 6,236,980 B1) Reese.

With respect to claim 37, Burakoff teaches, a storage device in col. 5, 36-39, a network interface in col. 5, lines 40-42, a processor (col. 5, lines 29-30) coupled to the storage device (col. 5, lines 36-39), the processor adapted to: store a database of master symbols, wherein each master symbol is linked to a parent identifier and a document database (col. 6, lines 10-13); receive an input symbol via a network interface (col. 5, lines 39-42 and Fig.2(52)); and storing the document in the document database so that the document is linked to the parent identifier (col. 2, lines 38-65). Burakoff did not teach, normalizing the input symbol to obtain a normalized input symbol formatted according to a predetermined structure and searching a master symbol database using a normalized symbol to find a matching master symbol and linked parent identifier. Reese discloses, normalizing the input symbol to obtain a normalized input symbol formatted according to a predetermined structure (col. 14, lines 22-34) and searching a master symbol database using a normalized symbol to find a matching master symbol and linked parent identifier (col.16, lines 20-34 and col. 17, lines 45-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to normalize the input symbol to obtain a normalized input symbol formatted according to a predetermined structure and to search a master symbol database using a normalized symbol to find a matching master symbol and linked parent identifier and to

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combine Burakoff's processing the symbol and storing a parent identifier with Reese's normalized symbol and using the normalized symbol to find the matching master symbol because such a modification in Burakoff would allow a user to enter the ticker symbol with the parent ID being the association found within the database.

With respect to claim 38, Burakoff did not teach, if the normalized symbol contains an unresolved segment, searching a contributor database to find a predominant use segment and assigning the predominant use segment to the unresolved segment. Reese discloses, if the normalized symbol contains an unresolved segment, searching a contributor database to find a predominant use segment and assigning the predominant use segment to the unresolved segment (col. 26, lines 14-24, fig. 10C(220) and col. 19, lines 3-17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a normalized symbol contain an unresolved segment searching a contributor database to find a predominant use segment and to assign the predominant use segment to the unresolved segment and to combine Burakoff's input symbol and parent identifier with Reese's normalized symbol containing an unresolved segment, searching a contributor database to find a predominant use segment and assigning the predominant use segment to the unresolved segment because such a modification in Burakoff would allow a user to enter the ticker symbol with the parent ID being the association found within the database and to search for another symbol/abbreviation in the database.

With respect to claim 39, Burakoff teaches, a storage device (col. 5, lines 36-39) storing a master symbol database and a document database (col. 6, lines 10-13), the master symbol database storing master symbols, wherein each master symbol is linked to a parent identifier (col. 4, lines 20-23), and the document database storing documents linked to a parent identifier; a network interface (col. 5, lines 40-42); a



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processor (col. 5, lines 29-30), which: receives an input symbol via the network interface (col. 7, lines 51-67) and retrieving documents from the document database that are linked to the parent identifier (col. 4, lines 52-65 and col. 6, lines 10-13). Reese discloses, normalizing the input symbol to obtain a normalized input symbol formatted according to a predetermined structure (col. 14, lines 22-34) and searches the symbol database using the normalized input symbol to find a matching master symbol and a linked parent identifier (col. 16, lines 20-34 and col. 17, lines 45-50). This independent claim is rejected for the similar rationale given for claim 37.

With respect to claim 40, this dependent claim is rejected for the similar rationale as given for claim 38.

***Claim Rejections - 35 USC § 103***

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 6,122,635) Burakoff et al, hereafter Burakoff in view of Official Notice.

With respect to claim 41, Burakoff teaches, receiving a plurality of input symbols, each pertaining to a same single entity (col. 7, lines 29-40); and for each of the plurality of input symbols, generating a normalized master symbol (col. 7, lines 61-67).

Burakoff did not teach, storing the parent symbol and the plurality of master symbols in a master symbol database wherein each of the plurality of normalized master symbols is linked to the parent symbol. The Office takes Official Notice that it would have been obvious to one having ordinary skill in the art at the time the invention

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was made to store the parent symbol and the plurality of master symbols in a master symbol database wherein each of the plurality of normalized master symbols is linked to the parent symbol and to modify in Burakoff because such a modification would allow Burakoff to have a main symbol for searching and connecting to in the database. A database by definition is a file composed of records, each containing fields together with as of operations for searching, sorting, recombining, and other functions.

With respect to claim 42, Burakoff teaches, a processor (col. 5, lines 29-30), wherein the processor is adapted to: receive a plurality of input symbols, each pertaining to a same single entity (col. 4, lines 20-24) for each of the plurality of input symbols, generate a normalized master symbol (col. 7, lines 61-67) determine a unique parent symbol corresponding to the master symbols (col. 8, lines 42-58).

This claim is also rejected for the similar rationale as claim 41.

### ***Claim Rejections - 35 USC § 103***

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. Claims 43-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burakoff in view of (US 6,236,980) Reese.

With respect to claim 43, Burakoff teaches, receiving an information element and at least an input symbol (col. 7, lines 5-15); and storing at least the parent identifier and the information element so that the parent identifier is linked to the information element (col. 3, lines 29-30 and lines 39-45, col. 4, lines 15-19, and col. 10, lines 19-51).

Burakoff did not teach, normalizing the input symbol, based on a historical pattern of a contributor of the information element, to generate a normalized symbol and searching a master symbol database using the normalized symbol to find a matching master symbol and linked parent identifier. Reese discloses, normalizing the input symbol, based on a historical pattern of a contributor of the information element, to generate a normalized symbol and searching a master symbol database using the normalized symbol to find a matching master symbol and linked parent identifier (col. 16, lines 20-34 and col. 17, lines 45-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to normalize the input based on a historical pattern of a contributor of the information element, to generate a normalized symbol and to search a master symbol database using the normalized symbol to find a matching master symbol and linked parent identifier and to combine Burakoff's receiving an information element, storing the parent identifier and the information element with Reese's normalizing the input symbol, based on a historical pattern of a contributor of the information element, to generate a normalized symbol and searching a master symbol database using the normalized symbol to find a matching master symbol and linked parent identifier because such a modification would allow Burakoff to allow a user to enter the ticker symbol with the parent ID being the association found within the database.

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With respect to claim 44, Burakoff teaches, receiving an input symbol (col. 7, lines 5-15) and storing at least the parent identifier and the information element so that the parent identifier is linked to the information element (col. 4, lines 52-65). Burakoff did not teach, normalizing the input symbol, based on a preference of a contributor of the information element, to generate a normalized symbol searching a master symbol database using the normalized symbol to find a matching master symbol and linked parent identifier. Reese discloses, normalizing the input symbol, based on a preference of a contributor of the information element, to generate a normalized symbol (col. 14, lines 22-34) and searching a master symbol database using the normalized symbol to find a matching master symbol and linked parent identifier (col. 16, lines 20-34 and col. 17, lines 45-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to normalize the input symbol, based on a preference of a contributor of the information element, to generate a normalized symbol searching a master symbol database using the normalized symbol to find a matching master symbol and linked parent identifier and to combine Burakoff's receiving an input symbol and storing a parent identifier with Reese's normalized input symbol, based on a preference of a contributor of the information element, to generate a normalized symbol searching a master symbol database using the normalized symbol to find a matching master symbol and linked parent identifier and to modify in Burakoff because such a modification would allow Burakoff to allow a user to enter the ticker symbol with the parent ID being the association found within the database.

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With respect to claim 45, this independent claim is rejected for the similar rationale as for claim 43.

With respect to claim 46, this independent claim is rejected for the similar rationale given for claims 43 and 45.

With respect to claim 47, Burakoff teaches, receiving an input symbol (col. 7, lines 5-15); searching an information element database to find an information element linked with the parent identifier (col. 3, lines 29-30 and lines 39-45, col. 4, lines 15-19, and col. 10, lines 19-51) and retrieving the information element linked to the parent identifier (col. 17, lines 45-50). Burakoff did not teach, normalizing the input symbol, based on an identification of a submitter of the input symbol, to generate a normalized symbol and searching a master symbol database using the normalized symbol to find a matching master symbol and a parent identifier linked to the master symbol. Reese discloses, normalizing the input symbol, based on an identification of a submitter of the input symbol, to generate a normalized symbol (col. 14, lines 22-34) and searching a master symbol database using the normalized symbol to find a matching master symbol and a parent identifier linked to the master symbol (col. 16, lines 20-34 and col. 17, lines 45-50). This independent claim is rejected for the similar rationale as given above for claim 45.

With respect to claim 48, this independent claim is rejected for the similar rationale given above for claims 45 and 47.

With respect to claim 49, this independent claim is rejected for the similar rationale given above for claims 47 and 48.

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### ***Conclusion***

25. The prior art made of record and not relied upon is considered pertinent to Applicants' disclosure.

Mizutani et al (US 5,748,953) disclosed a document search method and words segmented by predetermined symbols.

Buist (US 6,408,282) disclosed securities transactions over a computer network.

Nevo et al (US 5,946,666) disclosed financial securities and measuring values of more than one parameter of the system using a function dependent of a baseline and critical values of the parameters.

### **Inquires**

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 703-308-7064. The examiner can normally be reached on Monday-Thursday from 6:30 am -5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on 703-308-1038. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for Official communications and 703-746-5622 for Unofficial communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

A handwritten signature in black ink, appearing to read "E. Colbert", written in a cursive style.

E. Colbert  
June 15, 2003